



**VEIC Review of
2018-2020 NH Statewide Energy Efficiency Plan
Draft dated May 31, 2017**

**Home Performance with ENERGY STAR
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June 27, 2017**

Characteristics of Success

- Focus on comprehensive energy use assessment and savings recommendations
 - Provide a package of energy efficiency measures that significantly reduce home energy use
 - Focus at least on air sealing and insulation, and necessary health and safety improvements to install those measures
 - Ideally, also include HVAC upgrades
 - Develop and utilize a highly trained contractor base
 - Incorporate rigorous QA/QC processes
 - Conduct regular process and impact evaluations
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Best Practices for Achieving Success, and Why

- Structure incentives to drive energy savings
 - ❑ Performance-based and prescriptive incentive structures reward energy savings measures rather than overall project costs
 - ❑ Avoid artificial cost caps based on maximum incentive (larger projects = more savings)
 - Target customers who are most likely to benefit from a comprehensive approach
 - ❑ Is more cost effective
 - ❑ Can increase customer satisfaction
 - Provide on-going contractor training and QA/QC feedback
 - ❑ Improves work quality
 - ❑ Keeps skills up-to-date with new technologies and practices
 - Offer simple and affordable financing
 - ❑ Preferably as part of “kitchen table” sales
 - ❑ Include other home retrofit costs and/or renewable energy measures
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Overview of Program Proposed for NH

- Continues current HPwES program structure while reaching more customers (p. 62)
 - Explores opportunities to increase electric savings through cross promotion of products program, removing electric baseload from the rebate cap, and targeting measures contributing to high usage that aren't heating-related (p. 64)
 - Expands eligibility for natural gas customers with new visual audit and direct install of measures such as lighting, water saving measures, and connected thermostats (p. 65)
 - Eligibility based on Home Heating Index (HHI) score calculated using zip code, size of home, and annual heating fuel usage (p. 66)
 - Program is cost effective with average BCR of 1.84 for electric and 1.24 for gas over the 2018-2020 program cycle (p. 37)
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Key Aspects of NH Approach VEIC Supports

- Usage-based targeting helps ensure that program resources are spent effectively and improves customer satisfaction
 - Identification and cross promotion of additional savings opportunities in the products program
 - Inclusion of multifamily buildings
 - Affordable financing options
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Key Aspects VEIC Does Not Support

■ Cost-based incentive structure

- While we agree this can sometimes be easier for customers / contractors to comprehend, it can lead to artificial caps on investments as homeowners only do as much as is needed to maximize their incentive.

■ Consideration of HVAC measures outside of the HPwES program

- Customers would be better served by an increased incentive cap for projects which include HVAC measures and the ability to incorporate those improvements in financing packages. Utilities would achieve additional savings.
- Ductless mini-splits could produce significant energy and \$ savings for customers heating with propane or fuel oil.

■ Lack of incorporation of new technologies / strategies

- While usage-based targeting is good, could do more to simplify customer enrollment.
 - Consider pilots to test performance-based incentives / approaches.
 - “Smart” thermostats (rather than only Wi-Fi thermostats) could enable increased savings through learning occupant behaviors and HVAC optimization technology.
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Key Drivers in the Draft Plan

- Current contractor base for this program focuses only on insulation and air sealing
 - By including HVAC contractors as well, customers would receive more of a “one-stop-shop” AND the program could reach more potential customers. This is because there are typically many more HVAC repairs / replacements than HPwES jobs.

VEIC Recommendations

Recommendations	Rationale
<ol style="list-style-type: none">1. Continue to recommend an incentive structure based on energy savings rather than cost.2. Include HVAC measures as part of HPwES package and incentivize accordingly.3. Include new technology pilots, such as smart thermostats, HVAC optimization, and home energy management systems.	<ol style="list-style-type: none">1. Cost driven incentive structures tend to set artificial caps on efficiency investments. Measure- or performance-based incentive put more emphasis on energy savings measures.2. Customer satisfaction and increased energy savings.3. Increases energy savings and expands program eligibility.

Other Comments or Ideas

- There is excellent information in the Customer Education section (p. 46) which discusses E Source research regarding NH residential customers likelihood of installing particular energy saving measures. This should be more clearly connected with program plans.
 - The research reinforces the need to better engage residential customers in the value of high efficiency lighting, HVAC systems, and new technologies like Home Energy Management Systems and smart thermostats.
 - The planned spending and savings per participant almost double in 2018 compared to the 2017 plan.
 - The Utilities should explain what led to these changes in assumptions in the draft plan.
 - 2018-2020 planned spending per participant decreases each year – from \$4,390 in 2018 to \$3,835 in 2020. Meanwhile, planned savings remains at a constant 29 MMBtu per participant.
 - The utilities should explain why they expect the cost to achieve the proposed savings levels are expected to decrease over the course of the next 3-year cycle.
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Other Comments or Ideas

- High BCR for program means that the program could be:
 - ❑ Achieving more energy savings,
 - ❑ Reaching more customers, and / or
 - ❑ Investing in contractor training.
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Suggested Improvements for the Draft Document

■ Program Design, p.64:

- ❑ Notes that the HPwES program could save more electric energy savings through cross promotion. Would HPwES claim savings from the Products program?
- ❑ Regarding removing electric-baseload measures from rebate cap – unclear whether the intent is to encourage more uptake of lighting and other baseload measures or allow customers to apply those costs to non-baseload measures. If the latter, VEIC would not support the proposed approach.

■ Program Design, p. 65:

- ❑ Notes the NH Gas Utilities will include a new visual audit, but offers no details on what the audit would cost, how much anticipated savings it would produce, and how many of the forecasted program participants are as a result of this new approach versus a traditional HPwES project.
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Suggested Improvements for the Draft Document

- Incentives, p. 65:
 - Notes that “qualifying natural gas customers can receive an incentive from both electric and natural gas companies”. Are these customers able to get up to \$8,000 in incentives as a result? This should be made more clear in the document.
 - Recent or Planned Evaluations, p. 68:
 - Given the most recent evaluation of the program was 6 years ago, VEIC suggests that the 9/1/17 Plan incorporate process and impact evaluations in Year 1 of the new program cycle. Results should be used to assess current performance, update savings assumptions, and inform program enhancements to meet the new EERS goals.
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For More Information

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